

REMARKS

Claims 1, 3-7 and 9-10 have been amended. Claim 2 has been canceled. Claims 1 and 3-12 are pending in the present application.

35 U.S.C. § 112 Rejection

Claims 2-12 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite on the ground that the relationship between the shaft and the cylinder recited in claim 2 is unclear and there is no antecedent basis for the recitation in claim 2 of “the wall.”

Claim 1 has been amended to include limitations included in the limitations of claim 2. The above-noted concerns have been rectified in amended claim 1. Specifically, amended claim 1 now makes clear that one disc is mounted to the shaft, another disc is mounted to the cylinder and the shaft is mounted coaxially within the cylinder and is rotatable relative to the cylinder. In fact later in claim 1 it is clear that the cylinder has a helical slot to allow the disc that is mounted to the shaft to extend through the cylinder. In addition, the phrase “the wall” has been deleted.

35 U.S.C. § 102 Rejection

Claims 1-2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,939,708 (Pincemy). Applicant respectfully traverses the rejection.

Pincemy discloses a set of helical discs which overlay each other so that bearing portions of each disc are exposed depending on the relative rotation of these discs. All three discs are mounted on a cylinder, or “barrel 8”. “The barrel 8 is of such a diameter that it passes without play through both the discs 1 and 2,” (column 3, lines 60 and 61). Each of the discs are free to rotate on the cylinder except for the action of a driver 11 which bears against the trailing edge of one of the discs (column 4, lines 1 and 2). By the action of the barrel 8, the trailing edge of the discs, the sloping ramps 17 and 18 and the driver, which encounters these ramps, both of the discs are actuated by the same mechanism. The arrangement of the ramps allows the discs to be actuated independently.

Referring now to claim 1, this claim recites one disc mounted on a rotatable shaft. Any such shaft, as opposed to a disc cylinder, is not disclosed in Pincemy.

It follows that “the shaft being mounted coaxially within the cylinder” is also not disclosed in Pincemy. There is no disclosure of a shaft as such and there is no disclosure of any coaxial arrangement of cylinders or shafts. Pincemy discloses a simple “barrel 8” on which both discs are mounted.

Further, claim 1 recites “the cylinder having a helical slot through which an inner portion of the one disc adjacent the shaft extend.” Pincemy does not disclose any such helical slot and, indeed, it is clear in Pincemy that both discs are mounted upon the same cylinder (barrel 8).

Claim 1 also recites “rotation of the shaft relative to the cylinder producing relative axial movement between the shaft and the cylinder by virtue of moving in the [helical] slot in the cylinder”. It clearly follows from the above that this feature is not disclosed in Pincemy. Again, the movement of one disc mounted on a coaxial shaft, that disc moving within a slot formed in the cylinder which moves the other disc, is a mechanism which is not disclosed in any form in Pincemy.

From the above, it is clear that the invention as recited in claim 1 is not anticipated by Pincemy.

Although the Examiner did not raise a rejection on grounds of obviousness, applicant further submits for the record that Pincemy does not render amended claim 1 obvious. Specifically, Pincemy discloses a mechanism for relative movement of the discs which allows both discs to be mounted on the same cylinder or barrel. Both discs move about the barrel by action of trailing edges and a driver. The action of the ramps move the driver and discs vertically relative to each other. This vertical movement is essential to allowing either disc to be moved independently so as to relatively expose portions of the discs.

The invention of claim 1 so seeks to move the disc. However, it is clear from the features that relative movement of these discs is provided by the mounting of one of the discs on a

cylinder and the other on a shaft which is mounted coaxially within the cylinder and moveable relative to the cylinder. Essential to this mechanism is the helical slot formed in the cylinder along which the disc mounted to the shaft can move.

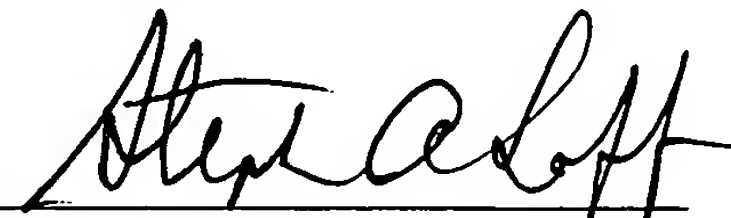
It is clear that Pincemy does not teach any of the features for moving the discs as recited in claim 1. It is also clear that Pincemy discloses mechanisms which rely on an entirely distinct approach: vertical movement of the driver relative to the trailing edges of the disc to allow both the discs to be mounted on said cylinder or barrel. By contrast, claim 1 relies on each disc being mounted to a separate element, namely a shaft and a cylinder, and having one extend through the cylinder by way of a helical slot. In light of this, and the absence of any commentary in Pincemy to the contrary, the citation does not provide any suggestion for the elements of the present invention.

Applicant notes that the Examiner has not returned an initialed copy of the form PTO/SB/08 that was submitted with the application as filed, listing the references cited in the International Search Report. The Examiner is requested to provide an initialed copy of this form with the next Office Action, reflecting that these references have been considered.

Applicant submits that the present application is in condition for allowance, and such action is earnestly solicited.

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Respectfully submitted,

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